coax® data sheet - coaxial valve

type VMK 32 DR VFK 32 DR



09/2022



Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve

- orifice
- port
- function NC/NO
- operating pressure
- inlet pressure at A, B or C
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation

- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation

- actuation pressure range min/max
- hydraulic control valve function

The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application. To avoid hydraulic shocks in pipelines, the flow velocities must be taken into account when designing valves for liquids.

specifications not highlighted are standard specifications highlighted in grey are optional

3/2 way valve	
pressure range	
orifice	
connection	
function	

operating principle body material

valve seat seal materials

ports

function pressure range

Kv value vacuum pressure-vacuum

back pressure media

abrasive media damping

flow direction switching cycles switching time

media temperature
ambient temperature
flush ports
leak ports
limit switches
manual override
approvals
mounting
weight
additional equipment

nominal voltage

power consumption

protection
energized duty rating
connection
optional
additional equipment
max. temperature

explosion proof

actuation pressure range air consumption cycle speed control pilot valve interface actuator ports

actuation pressure range control actuator ports by media

externally controlled

PN 0-100 bar DN 32 mm

thread/flange

valve

normally closed (A ►B)

symbol **NC**

valve normally open (A ►B)

symbol **NO**

pressure balanced, with spring return, intersecting switch-over

① brass

② steel galvanized

3 brass, nickel plated

(5) without non-ferr. Metals

4 steel, nickel plated

6 stainless steel

synthetic materials on metal

BR PTFE, FPM, CR, EPDM

general sp	pecifications	options			
VMK	threads G 1 1/4 - G 1 1/2	special threads			
VFK	flanges PN 16 / 40 / 100	special flanges			
	NC	NO			
bar	0-16 / 0-40 / 0-63 / 0-100	0-16 / 0-40 / 0-63 / 0-100			
	$A \Rightarrow B \text{ max. } 100 / B \Rightarrow A \text{ max. } 16 / A \Rightarrow C \text{ max. } 100 / C \Rightarrow A \text{ max. } 100$				
m³/h	18.9				
leak rate		< 10 ⁻⁶ mbar•l•s ⁻¹			
P1⇔ P2		pressure side max. 100 bar			
		vacuum side leak rate upon request			
P2 > P1	see pressure range				
	gaseous - liquid - highly viscous -				
	gelatinous - pasty - contaminated				
		available			
opening					
closing	by throttles on pilot valve				
	see pressure range				
1/min	150				
ms	opening 100-3000				
	closing 100-3000				
°C	direct mounted pilot valve 60	remote mounted pilot valve outside			
°C	direct mounted pilot valve 50	temperatur range of media max. 160 °C			

electrical specifications

via pilot valve

VMK 8.5 VFK 10.2

options

available

LR/DNV/WAZ

upon request

mounting brackets

inductive / mechanical upon reques

Un	DC 24 V	special voltage upon request
Un	AC 230 V 50 Hz	special voltage upon request
DC	4.8 W	2.5 W (actuation pressure range 4-7 bar)
AC	pick up 11.0 VA holding 8.5 VA	
IP65 (P54)	acc. DIN 40050	
ED	100%	
	plug acc. DIN EN 175301-803 form B, 2	2 positions x180° / wire diameter 6-8 mm
M12x1	connector acc. DESINA	connector acc. VDMA
	illuminated plug with varistor	
media	60°C	
ambient	50°C	
E Ex e II T5	nominal voltage Un	DC 24 V 3.25 W
	power consumption	AC 230 V 50 Hz 2.90 W

pneumatic specifications

options

bar	4-8	
cm³/stroke	23	
	main valve speed variable by throttles	on pilot valve
	preferably 5/2 way pilot valve	
	co-ax / Namur	ISO 1
2/4	G 1/8	G 1/4

hydraulic specifications

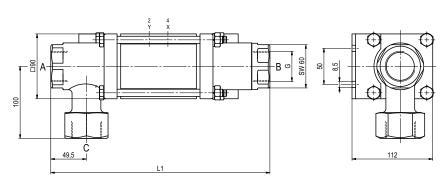
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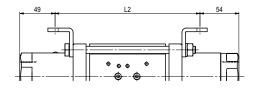
bar	15-30 / 30-60		
	preferably 4/2 way control valve		
X/Y	G 1/4	NPT 1/4	

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function: NC closed when not energized (A \triangleright B)

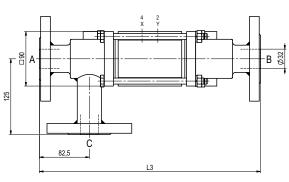


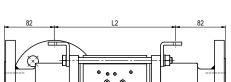


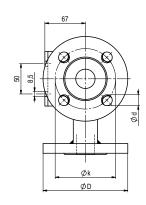
constructive length	L1	L2	L3
standard	304	201	365
with inductive limit switches	311	208	372
with force-feed lubrication nipple	341	238	402
with mechanical limit switches	339	236	400

flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	140	100	18
40	EN 1092-1	140	100	18
100	EN 1092-1	155	110	22

function: **NO** open when not energized [A ►B]







pneumatic specifications



5/2 way pilot valve flow rate 700 l/min pressure range 3-10 bar G 1/8



5/2 way pilot valve ISO 1 flow rate 700 l/min pressure range 3-10 bar G 1/4